



## AFFIDAVIT OF MICHELLE RATCHFORD

STATE OF TEXAS

§

COUNTY OF BEXAR

§

I, Michelle R. Ratchford, do hereby aver and state that:

1. I am over the age of 18;
2. I have a M.S. degree and a B.S. degree in Chemistry from The University of Texas at San Antonio;
3. I have been employed by Southwest Research Institute ("SwRI") for 16 years. SwRI is an independent, nonprofit, applied engineering and physical sciences research and development organization. For the past thirteen years, I have been in the Fuel Conformance Section of the Petroleum Products Research Department. For the past three years, I have been Manager of Fuel Conformance. Fuel Conformance is responsible for providing analytical and physical testing and the evaluation and qualification of fuels procured by contractors in the field for our clients which include major oil corporations.
4. Clients of SwRI requested Fuels Conformance to analyze gasoline blends in June, 1992. Our assignment included the testing of certain physical and chemical properties of such gasoline fuels in selected areas of the United States. The report of our findings is set forth in *Exhibit A* and *Exhibit B*. Copies of *Exhibit A* and *Exhibit B* are attached. I have reviewed *Exhibit A* and *Exhibit B* and am familiar with the entire report from which these Exhibits are excerpted.
5. The first datapoint in *Exhibit B* and the second datapoint of *Exhibit A* report a gasoline fuel containing 9.2 volume percent ethanol and exhibiting a Reid Vapor Pressure (RVP) of 6.7. This datapoint is certainly unusual and one versed in the field of gasoline fuels would readily conclude that this datapoint is not typical of the fuels normally produced or distributed for the June, 1992 time period. The cause of this unusual result cannot now be determined but could be attributable to analysis errors, sample production, sample distribution problems, in tank product mixing or the use of unauthorized blending components at the retail outlet. As such, the RVP for this gasoline fuel is unusual and outside of the range of data that would have normally been anticipated for the June, 1992 time period.

6. FURTHER AFFIANT sayeth not.

DATED: August 6, 2001.

Michelle R. Ratchford  
Michelle R. Ratchford

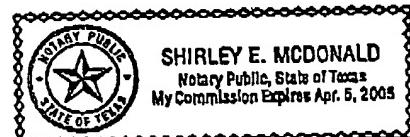
STATE OF TEXAS        \$  
                          \$  
COUNTY OF BEXAR      \$

BEFORE ME, the undersigned authority, on this day personally appeared Michelle Ratchford, known to me to be the person whose name is subscribed to the foregoing instrument; and acknowledged to me under oath that she executed the foregoing document.

SUBSCRIBED AND SWORN TO BEFORE ME on this the 6 day of August,  
2001.

Shirley E. McDonald  
Shirley E. McDonald  
Printed Name:

NOTARY PUBLIC IN AND FOR  
THE STATE OF TEXAS



# Exhibit A

## GASOLINE DATA

1992

## ASTM D-86 DISTILLATION

JUNE

|     | RON  | MOM  | RAM/2 | OCT. | API  | 10% | 50% | 90% |      |
|-----|------|------|-------|------|------|-----|-----|-----|------|
| MTU | 95.0 | 84.2 | 89.7  | 89.3 | 58.3 | 121 | 177 | 334 | 8.9  |
| PU  | 97.1 | 86.8 | 92.0  | 92.0 | 61.4 | 138 | 218 | 336 | 7.2  |
| RL  | 95.6 | 85.8 | 90.7  | 91.0 | 58.4 | 132 | 230 | 327 | 8.6  |
| RU  | 95.8 | 85.9 | 90.9  | 91.0 | 57.8 | 130 | 228 | 321 | 8.5  |
| RU  | 98.4 | 87.3 | 92.9  | 93.5 | 58.2 | 126 | 206 | 312 | 8.8  |
| RU  | 96.2 | 86.1 | 91.2  | 91.0 | 55.1 | 127 | 228 | 325 | 8.2  |
| RU  | 97.4 | 85.9 | 91.7  | 91.0 | 58.1 | 122 | 202 | 323 | 10.5 |
| RU  | 96.7 | 86.3 | 91.6  | 91.6 | 58.2 | 129 | 219 | 324 | 8.6  |
| RU  | 94.8 | 84.6 | 89.7  | 90.0 | 58.3 | 122 | 184 | 335 | 9.7  |
| RU  | 94.5 | 84.5 | 89.5  | 89.0 | 58.2 | 124 | 189 | 338 | 9.7  |
| RU  | 94.6 | 84.5 | 89.6  | 89.5 | 58.2 | 123 | 187 | 337 | 9.7  |
| RU  | 92.3 | 82.1 | 87.2  | 87.0 | 57.8 | 122 | 197 | 344 | 8.6  |
| RU  | 91.4 | 82.7 | 87.1  | 87.0 | 59.4 | 124 | 207 | 342 | 8.5  |
| RU  | 91.9 | 83.1 | 87.5  | 87.0 | 59.4 | 125 | 204 | 335 | 8.7  |
| RU  | 91.4 | 82.7 | 87.1  | 87.0 | 59.3 | 129 | 210 | 344 | 8.4  |
| RU  | 92.0 | 83.4 | 87.7  | 87.0 | 60.3 | 125 | 202 | 332 | 8.7  |
| RU  | 91.4 | 82.7 | 87.1  | 87.0 | 59.3 | 130 | 212 | 338 | 8.4  |
| RU  | 91.7 | 82.8 | 87.3  | 87.0 | 59.2 | 126 | 205 | 339 | 8.5  |

EXHIBIT A

Gasoline Data from a Third Party, June 1992

|          | RVP | ETOH | CITY_NAME | COMPANY_NAME | GRADE | T10 | T50 | T90 |
|----------|-----|------|-----------|--------------|-------|-----|-----|-----|
|          | PSI | VOL% |           |              |       | (F) | (F) | (F) |
| REDACTED | 6.7 | 9.2  | REDACTED  | REDACTED     | MU    | 122 | 178 | 332 |
| REDACTED | 6.9 | 10.2 | REDACTED  | REDACTED     | PU    | 139 | 217 | 309 |
| REDACTED | 6.9 | 9.9  | REDACTED  | REDACTED     | MU    | 136 | 215 | 325 |
| REDACTED | 6.9 | 9.9  | REDACTED  | REDACTED     | PU    | 136 | 219 | 314 |
| REDACTED | 7   | 5.7  | REDACTED  | REDACTED     | MU    | 131 | 195 | 306 |
| REDACTED | 7   | 5.7  | REDACTED  | REDACTED     | PU    | 136 | 201 | 305 |
| REDACTED | 7   | 5.8  | REDACTED  | REDACTED     | MU    | 130 | 200 | 305 |
| REDACTED | 7   | 5.7  | REDACTED  | REDACTED     | PU    | 132 | 198 | 300 |
| REDACTED | 7   | 5.8  | REDACTED  | REDACTED     | RU    | 126 | 198 | 303 |
| REDACTED | 7   | 9.6  | REDACTED  | REDACTED     | PU    | 139 | 223 | 304 |
| REDACTED | 7   | 10   | REDACTED  | REDACTED     | MU    | 137 | 217 | 327 |
| REDACTED | 7   | 10.1 | REDACTED  | REDACTED     | RU    | 134 | 208 | 338 |
| REDACTED | 7.1 | 9.6  | REDACTED  | REDACTED     | MU    | 123 | 178 | 340 |
| REDACTED | 7.1 | 8.4  | REDACTED  | REDACTED     | MU    | 138 | 197 | 308 |
| REDACTED | 7.1 | 8.7  | REDACTED  | REDACTED     | PU    | 138 | 207 | 303 |
| REDACTED | 7.1 | 8.6  | REDACTED  | REDACTED     | RU    | 140 | 194 | 311 |
| REDACTED | 7.1 | 5.7  | REDACTED  | REDACTED     | RU    | 134 | 197 | 315 |
| REDACTED | 7.1 | 10.1 | REDACTED  | REDACTED     | RU    | 138 | 218 | 340 |
| REDACTED | 7.2 | 9.6  | REDACTED  | REDACTED     | RU    | 132 | 187 | 356 |
| REDACTED | 7.2 | 10.1 | REDACTED  | REDACTED     | MU    | 120 | 161 | 335 |
| REDACTED | 7.2 | 7.7  | REDACTED  | REDACTED     | PU    | 129 | 206 | 361 |
| REDACTED | 7.2 | 10.1 | REDACTED  | REDACTED     | MU    | 132 | 203 | 358 |
| REDACTED | 7.2 | 10.1 | REDACTED  | REDACTED     | RU    | 135 | 214 | 344 |
| REDACTED | 7.3 | 7.7  | REDACTED  | REDACTED     | PU    | 141 | 221 | 325 |
| REDACTED | 7.3 | 7.4  | REDACTED  | REDACTED     | PU    | 139 | 214 | 323 |
| REDACTED | 7.3 | 7.2  | REDACTED  | REDACTED     | PU    | 138 | 231 | 345 |
| REDACTED | 7.3 | 7.1  | REDACTED  | REDACTED     | RU    | 134 | 196 | 348 |
| REDACTED | 7.4 | 9    | REDACTED  | REDACTED     | PU    | 140 | 239 | 328 |
| REDACTED | 7.4 | 9.3  | REDACTED  | REDACTED     | MU    | 135 | 212 | 325 |
| REDACTED | 7.5 | 7.2  | REDACTED  | REDACTED     | PU    | 133 | 218 | 340 |
| REDACTED | 7.5 | 10.5 | REDACTED  | REDACTED     | RL    | 126 | 175 | 331 |
| REDACTED | 7.5 | 7.5  | REDACTED  | REDACTED     | MU    | 130 | 207 | 349 |
| REDACTED | 7.5 | 8    | REDACTED  | REDACTED     | PU    | 136 | 216 | 317 |
| REDACTED | 7.5 | 10   | REDACTED  | REDACTED     | MU    | 133 | 203 | 333 |
| REDACTED | 7.5 | 10.1 | REDACTED  | REDACTED     | PU    | 140 | 229 | 321 |
| REDACTED | 7.5 | 10   | REDACTED  | REDACTED     | PU    | 140 | 217 |     |
| REDACTED | 7.6 | 8.87 | REDACTED  | REDACTED     | RU    | 121 | 200 | 305 |
| REDACTED | 7.6 | 8.4  | REDACTED  | REDACTED     | PU    | 136 | 215 | 330 |
| REDACTED | 7.6 | 7.5  | REDACTED  | REDACTED     | PU    | 138 | 235 | 338 |
| REDACTED | 7.6 | 8.4  | REDACTED  | REDACTED     | PU    | 137 | 234 | 334 |
| REDACTED | 7.6 | 10.3 | REDACTED  | REDACTED     | MU    | 130 | 190 | 321 |
| REDACTED | 7.6 | 11.6 | REDACTED  | REDACTED     | PU    | 137 | 217 | 336 |
| REDACTED | 7.6 | 11   | REDACTED  | REDACTED     | RU    | 131 | 187 | 331 |
| REDACTED | 7.6 | 10.1 | REDACTED  | REDACTED     | RU    | 130 | 197 | 340 |
| REDACTED | 7.6 | 10.2 | REDACTED  | REDACTED     | RU    | 133 | 198 | 350 |
| REDACTED | 7.6 | 10.8 | REDACTED  | REDACTED     | RU    | 134 | 199 | 320 |
| REDACTED | 7.6 | 10.3 | REDACTED  | REDACTED     | PU    | 137 | 214 | 331 |
| REDACTED | 7.6 | 10.5 | REDACTED  | REDACTED     | PU    | 139 | 219 | 338 |
| REDACTED | 7.6 | 10.5 | REDACTED  | REDACTED     | PU    | 134 | 211 | 327 |
| REDACTED | 7.6 | 10.5 | REDACTED  | REDACTED     | PU    | 139 | 212 | 304 |

# Exhibit B

**INSTRUCTIONS:** All material in this supplement is keyed to SECTIONS and SUBSECTIONS of the main volume. References to footnotes already in the volume are preceded by an "N." New footnotes do not have an "N."

# **CHISUM ON PATENTS**

**A TREATISE ON THE LAW OF  
PATENTABILITY, VALIDITY, AND  
INFRINGEMENT**

**JULY 2000  
CUMULATIVE SUPPLEMENT**

**VOLUME 3**

**Donald S. Chisum**

*Professor of Law  
Santa Clara University  
Santa Clara, California*

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understanding of the law and are believed to be fully consistent with binding precedent of the Supreme Court, the Federal Circuit, and the Federal Circuit's predecessor courts.

These guidelines do not constitute substantive rulemaking and hence do not have the force and effect of law. They are designed to assist Office personnel in analyzing claimed subject matter for compliance with substantive law. Rejections will be based upon the substantive law, and it is these rejections which are appealable. Consequently, any failure by Office personnel to follow the guidelines is neither appealable nor petitionable.

These guidelines are intended to form part of the normal examination process. Thus, where Office personnel establish a *prima facie* case of lack of written description for a claim, a thorough review of the prior art and examination on the merits for compliance with the other statutory requirements, including those of 35 U.S.C. 101, 102, 103, and 112, is to be conducted prior to completing an Office action which includes a rejection for lack of written description.

Office personnel are to rely on these guidelines in the event of any inconsistent treatment of issues involving the written description requirement between these guidelines and any earlier guidance provided from the Office. Although these guidelines address examples principally drawn from the biotechnological arts, they are intended to be equally applicable to all fields of invention.

#### I. General Principles Governing Compliance with the 'Written Description' Requirement for Applications

The first paragraph of 35 U.S.C. 112 requires that the 'specification shall contain a written description of the invention \* \* \*'. This requirement is separate and distinct from the enablement requirement.<sup>4</sup> This written description requirement has several policy objectives. '[T]he "essential goal" of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed.'<sup>5</sup> Another objective is to put the public in possession of what the applicant claims as the invention. The written description requirement prevents an applicant from claiming subject matter that was not described in the specification as filed, and the proscription against the introduction of new matter in a patent application<sup>6</sup> serves to prevent an applicant from adding information that goes beyond the subject matter originally filed.

To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention.<sup>7</sup> This requirement of the Patent Act promotes the progress of the useful arts by ensuring that patentees adequately describe their inventions in their patent specifications for the benefit of the public in exchange for the right to exclude others from practicing the invention for the duration of the patent's term.<sup>8</sup>

#### II. Evaluate Whether The Application Complies With the 'Written Description' Requirement

The inquiry into whether the description requirement is met must be determined on a case-by-case basis and is a question of fact.<sup>9</sup> The examiner has the initial burden of presenting evidence or reasons why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims.<sup>10</sup> Office personnel should adhere to the following procedures when reviewing patent applications for compliance with the written description requirement of 35 U.S.C. 112, 1.

##### A. Review the Entire Application To Determine What Applicant has Invented, the Field of the Invention and the Level of Predictability in the Art

Prior to determining whether the claims satisfy the written description requirement, Office personnel should review the entire specification, including the specific embodiments, figures,